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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

RODRIGUEZ, JOSEPH C

ART UNIT

PAPER NUMBER

3653

NOTIFICATION DATE

DELIVERY MODE

08/11/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/522,177	Applicant(s) ANTILA ET AL.	
	Examiner JOSEPH C. RODRIGUEZ	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to for improper language. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The language should be clear and concise and should not repeat information given in the title. *It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.*

Further, the use of references to claim numbers (see e.g., para. 19) to describe the subject matter within the specification is objected to as this practice may lead to an inaccurate specification when the claims have been amended or cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 3, 6, 8, 9, 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramsey et al. ("Ramsey")(US 1,413,935).

Ramsey (Fig. 1-3) teaches a screening machine comprising
a vibrating screen (2) having at least one screen surface and adapted to convey material from a first end to a second end,

Art Unit: 3653

feeding means comprising a conveyor (3) arranged to feed material to be screened towards the screen surface at a fixed location in the first end and onto the screen surface, the screen surface being capable of separating the material into a first fraction remaining on the screen surface and into a second fraction passed through the screen surface while the material is moving along the screen surface towards the second end (p. 1, ln. 60 +),

a sensor (12, 23) arranged to measure a variable dependent on the amount of material on the screen surface;

a controller (21, 22) to which said sensor is connected through a data transmission line to receive a measurement value related to said variable from the sensor; and

an actuator (19) operatively connected to the conveyor and arranged to change the feeding speed of the conveyor, wherein Ramsey teaches that said controller automatically reduces or increases the conveyor speed when the sensor detects preset values (p. 1, ln. 73 + teaching avoidance of “under load”, val min, or “overload”, val max, conditions by sensing load on motor or on discharge conveyor). Here, the claimed method steps are inherent in the normal operation of the device cited above, wherein maximum or minimum conveyor speeds are inherent from the operational parameters of the conveyor motor.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhmonen (US 5,248,042) in view of Girts, Jr. ("Girts")(US 5,292,006) and Hahn et al. ("Hahn")(US 4,627,576).

Kuhmonen teaches a method for controlling a screening machine comprising

Re: claim 1, determining the amount of material on the screen surface by automatic measurement (col. 3, ln. 58 +), and controlling the amount of material on the screen surface by adjusting the conveying speed of the conveyor on the basis of the measurement by automatic control in such a manner that the conveying speed which is above zero is changed to a different conveying speed by providing upper and lower preset values (valmax, valmin) for the measurement value (valm) of a variable dependent on the amount of material on the screen surface (Id.), lowering the speed of the conveyor when the measurement value (valm) passes one of the preset values, and increasing the speed of the conveyor when the measurement value (valm) passes the other preset value (Id. teaching slowing/stopping of conveyor when screen is overloaded and resuming of operation when threshold value is passed);

Art Unit: 3653

Re: claim 2, determining the amount of material on the screen surface comprising measuring a variable of the movement of the screen surface or a variable of the drive means of the screen surface causing the movement of the screen surface (col. 3, ln. 57 +);

Re: claim 3, determining the amount of material on the screen surface comprising measuring the load caused by the material on any of the processing units of the screening machine or on any machine following the screening machine and extending the process of the screening machine and being connected to the control system of the screening machine (Id.);

Re: claim 4, measuring the load caused by the material on the screen comprising measuring a variable of the screen drive means causing the transport or processing of the material on the screen surface (Id.);

Re: claim 5, that the variable is a drive pressure, drive current or drive running speed (Id. and col. 5, ln. 54 +);

Re: claim 6, that the processing unit is any of the following: a discharge conveyor, a shredder, or a crusher (col. 3, ln. 44+);

Re: claim 7, measuring the load comprises measuring any of the following variables: drive pressure of the discharge conveyor, shredder or crusher, drive current of the discharge conveyor, shredder or crusher, running speed of the discharge conveyor, shredder or crusher (col. 3, ln. 57 +). Here, Examiner contends that the rotation of the drum causes the drum to act as a discharge conveyor in addition to a screen.

Art Unit: 3653

Re: claim 8, that the machine following the screening machine and extending the process of the screening machine and being connected to the screening machine's control system is any of the following: a second screening machine, a crushing machine or a conveying machine (26);

Re: claim 9, measuring the load on an engine caused by the material (col. 3, ln. 57 +);

Re: claim 11, presetting a maximum speed and a minimum speed for the conveyor. Examiner contends that the minimum speed is 0 when the feeder is stopped and the maximum speed is the operating speed of the feed conveyor (18).

Re: claim, 12 providing a predetermined maximum time (t_{max}) for the measurement value (v_{alm}) to be beyond the preset value; and lowering the speed of the conveyor below a preset speed value when the measurement value (v_{alm}) has been beyond the preset value for a period that exceeds the predetermined maximum time (t_{max}) (col. 3, ln. 57+);

Re: claim 13, stopping the conveyor when the measurement value (v_{alm}) has been beyond the preset value for the period (ld.);

Kuhmonen as set forth above thus teaches all that is claimed except for expressly teaching lowering the speed of the conveyor without stopping the conveyor. This feature, however, is well known in the sorting and conveying arts. For instance, Girts teaches a control means that variably controls the rate material is placed on a conveyor (col. 3, ln. 66 +) that provides the benefit of preventing an overloading of the conveyor (ld.). Hahn further demonstrates that it is well known in the screening arts to

Art Unit: 3653

vary the rate of the material flow based on a variety of measurements to ensure optimal feeding conditions and greater control over the screened particle sizes (Fig. 1, 6, 7; col. 13, ln. 5 +; col. 17, ln. 4 +; col. 27, ln. 54–col. 29, ln. 23). It would thus be obvious to one with ordinary skill in the art to modify the base reference with these prior art teachings to arrive at the claimed invention. The rationale for this obviousness determination can be found in the prior art itself as cited above. Moreover, the modification to arrive at the claimed invention would merely involve the substitution/addition (e.g., substitution of conveyor control system) of well-known elements with no change in their respective functions. Moreover, the use of prior art elements according to their known functions is a predictable variation that would yield predictable results, and thus cannot be regarded as a non-obvious modification when the modification is already commonly implemented in the prior art. Further, the prior art discussed and cited demonstrates the level of sophistication of one with ordinary skill in the art and that these modifications would be well within this skill level. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Kuhmonen for the reasons set forth above.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhmonen (US 5,248,042) in view of Girts, Jr. (“Girts”)(US 5,292,006) and Hahn et al. (“Hahn”)(US 4,627,576)as applied to the claims above, and further in view of Greene (US 4,665,772) and what is well known in the art.

Art Unit: 3653

Kuhmonen et al. as set forth above teach all that is claimed except for expressly teaching measuring the load by measuring the temperature of the hydraulic fluid of the hydraulic system. This feature, however, is well-known in the sorting arts. For instance, Greene teaches the use of hydraulic fluid temperature as a control input (col. 8, ln. 40+) for facilitating shift performance and minimizing other adjustments (col. 8, ln. 49+) and minimizing shift shock or jerk. It would thus be obvious to one with ordinary skill in the art to modify the base reference with these prior art teachings to arrive at the claimed invention. The rationale for this obviousness determination can be found in the prior art itself as cited above. Further, the modification to arrive at the claimed invention would merely involve the substitution/addition (e.g., addition of another sensor element to feed conveyor control system) of well-known elements with no change in their respective functions. Moreover, the use of prior art elements according to their known functions is a predictable variation that would yield predictable results, and thus cannot be regarded as a non-obvious modification when the modification is already commonly implemented in the prior art. Further, the prior art discussed and cited demonstrates the level of sophistication of one with ordinary skill in the art and that these modifications would be well within this skill level. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Kuhmonen et al. for the reasons set forth above.

Response to Arguments and Allowable Subject Matter

Applicant's arguments are unpersuasive in view of the newly formulated prior art rejections set forth above.

Examiner notes, however, that claims 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Joseph C Rodriguez** whose telephone number is **571-272-3692** (M-F, 9 am – 6 pm, EST). The Supervisory Examiner is Stefanos Karmis, **571-272-6744**. The **Official** fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

The examiner's **UNOFFICIAL Personal fax number** is **571-273-3692**.

Further, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>

Art Unit: 3653

Should you have questions on access to the Private PMR system, contact the Electronic Business Center (EBC) at **866-217-9197** (Toll Free).

/Joseph C Rodriguez/
Primary Examiner, Art Unit 3653
Jcr

August 9, 2010